

SUPPLEMENTARY MACHINE SERVICE BULLETIN #40 E

SUBJECT: Explanation of adjustments KAA Models 1 and 2 series.

DATE: April 14th, 1927.

TO ALL OFFICES:

If when operating the #2 to #9 multiplier keys the machine registers less than the number indicated by the depressed key which does not restore, and the machine may jam, the depressed key may be either held depressed, or no pressure may be applied to it. The #10 and #1 keys operate properly.

1st Cause:

The latching point on the adjustable extension 1345 of trip lifter 1321 does not have a good hold on the lug of trip lifter latch 1308 (Plates 35A and 44, Machine Service Bulletin #40) when a multiplier key is depressed.

Explanation:

When a multiplier key is being depressed, the shutter box 13-30 (Plate 45) and associated parts is rocked to the left, as viewed from the front. Thereby the trip lifter 1321 is lifted by the bracket 1319. This in turn lifts the pin 1270 on the machine stopping lever 12-74 (Plate 40) to stop the machine. The adjustable extension 1345 latches behind the lug on trip lifter latch 1308. The rack 1245 on the shutter box 13-30 now drops in the notch of the key stem 1246, and the bracket 1319 drops down a certain distance. (See also description Plate 32, Figure 8, and Plate 33, Figures 12 to 13.)

If the adjustable extension 1345 is adjusted too high, the trip lifter latch 1308 raises too high, and as the bracket 1319 drops down, it will push the trip lifter latch down so far that the latching point on the extension 1345 has only a slight hold on the lug of the trip lifter latch 1308.

The vibration of the machine is sufficient to unlatch it, and the stopping mechanism previously set will function and stop the machine (see description Plate 33, Figures 14 and 16) before it has rotated the number of times indicated by the depressed key.

Or: The bracket 1319 will give the trip lifter latch such a sharp blow that the extension 1345 does not latch at all. In this case the machine would make only one revolution and stop.

Remedy:

Adjust the extension 1345 so it has a full hold on the lug of the trip lever latch 1308, when the key is fully depressed and the rack 1245 is in the slot of the key stem 1246.

Note: If the rack 1245 is uneven, or the box does not line up so there is an even distance from its right edge to the keys, the machine may fail on certain keys, while the others will operate properly. Therefore, test the latching of 1345 on 1308, and balance it so it is secure on all keys.

2nd Cause:

The quick stroke sub-latch 7-80 hangs on the quick stroke latch 723 (Plate 40). In this case a strong pressure is required to depress any multiplier key, and the machine will make one revolution and stop off center.

Explanation:

When a multiplier key is depressed, and the pin 1270 is lifted, the machine stopping lever 12-74 (Plate 40) is lifted, so quick stroke sub-latch 7-80 drops under the lug on machine stopping lever 718. See description (Plate 32, Figure 8). It is noted that E rests on D, and F on the upper arm of trip lifter 1321. If this arm is bent up too high the machine locator arm 12-60 (Plate 39) will not drop in front of the connecting link 1221 (Plate 39), and the machine will stop off center. The machine stopping lever 12-74 (Plate 40) is held raised, and the tension of the spring 783 holds the quick stroke sub-latch 7-80 in contact with quick stroke latch 723. When a key is now depressed the spring 783 is being tensioned, which causes a heavy key depression, and as the rack 1245 enters the notch of the key stem 1246, this causes the bracket 1319 to drop very snappily, and gives the trip lifter latch an even harder blow than before mentioned, which causes the trip lifter extension 1345 to unlatch from the lug of the trip lifter latch 1308, and the machine makes only one revolution; the depressed key stays down, and the machine stops off center.

Remedy:

Adjust the upper arm of trip lifter 1321 so when multiplier unit is in neutral the quick stroke sub-latch 7-80 does not stick. Then see if machine stopping lever 12-74 is lifted high enough so that the lug on the quick stroke sub-latch will fall under the lug on 12-74; see also if the machine locator arm 12-60 latches on the latch for machine locator arm 1222 (Plate 39). It should be raised at least 1/32 above the latching point on 1222. If it is not raised high enough, bend the upper lug on the trip lever 1321, but be sure to see that the quick stroke sublatch 7-80 does not stick. If necessary bend the lug on it slightly.

Note: If the machine locator arm 12-60 does not latch on the latch 1222, the machine may make one revolution and jam.

3rd Cause:

The flexible end for overcarry trip lever 1231 (Plate 40) is tripped before the machine has made the number of revolutions indicated by the depressed key, but the latching between the extension 1345 of the trip lifter 1321 and the lug on trip lifter latch 1308 was not disturbed.

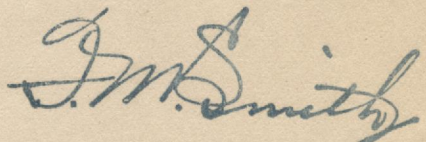
Explanation:

As explained before, the lifting of trip lifter 1321 should be properly adjusted, but now the distance which the latching point on the extension 1345 for the trip lifter 1321 raises beyond the rear edge of the lug on the trip lifter latch 1308, has to be considered. If it raises too far, naturally the trip lifter 1321 will drop down more than it should before it latches. As the machine stopping lever 12-74 rests with its pin 1270 on the upper arm of the trip lifter ~~lever~~ 1321, it will drop down also. This in turn causes its rear end and associated parts to rise as the machine starts, and the flexible end for overcarry trip lever 1231 is raised, and only a slight latching is maintained between the point of 1231 and the cycle stopping latch 725 on 7-72-A. The vibration of the machine may jar this off, and the machine will stop off center. The depressed key stays down.

Remedy:

Adjust by grinding off the lower edge of the arm on 1321, which rests on the bracket 1319. The latching edge on the adjustable extension for trip lever 1321 should raise between 1/32" to 1/16" beyond the rear edge of the lug on the trip lifter latch 1308. This allows for variation in the different keys. If now the upper arm of the trip lifter does not raise high enough, it should be bent upward and adjusted as explained before.

FMS:H


General Service Manager.

Mr. R. W. Suddard,
Toledo, Ohio.

Note: If the machine loader arm 13-30 does not latch on the latch 1332, the machine may make one revolution and jam.

3rd Cause:
The flexible end for overcarry trip lever 1331 (Plate 40) is tripped before the machine has made the number of revolutions indicated by the depressed key, but the latching between the extension 1345 of the trip lever 1331 and the lug on trip lever latch 1308 was not disturbed.

Explanation:
As explained before, the lifting of trip lever 1331 should be properly adjusted, but now the distance which the lever raises beyond the rear edge of the lug on the trip lever latch 1308, has to be considered. If it raises too far, naturally the trip lever 1331 will drop down more than it should before it latches. As the machine stopping lever 13-74 rests with its pin 1370 on the upper arm of the trip lever 1331, it will drop down also. This in turn causes the rear end and associated parts to rise as the machine starts and the flexible end for overcarry trip lever 1331 is raised and only a slight latching is maintained between the point of 1331 and the cycle stopping latch 725 on 7-73-A. The vibration of the machine may jar this off, and the machine will stop off center. The depressed key stays down.

Remedy:
Adjust by grinding off the lower edge of the arm on 1331 which rests on the bracket 1319. The latching edge on the adjustable extension for trip lever 1331 should raise between $1/32$ " to $1/16$ " beyond the rear edge of the lug on the trip lever latch 1308. This allows for variation in the different keys. If now the upper arm of the trip lever does not raise high enough, it should be bent upward and adjusted as explained before.

General Service Manager.

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